CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 86-3

WASTE DISCHARGE REQUIREMENTS FOR:
(SITE CLEANUP REQUIREMENTS)

MCKESSON CHEMICAL COMPANY, UNION CITY
ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. McKesson Chemical Company (hereinafter called the discharger) operates a chemical packaging and distribution facility at 33950 Seventh Street in Union City, California (Attachment 1).

2. Inorganic and organic chemicals are handled at the facility including organic solvents. Chemicals handled in large volumes, such as mineral acids and solvents [1,1,1 trichloroethane (TCA), tetrachloroethene (PCE), and methylene chloride], are stored in above-ground tanks and transferred into barrels at drum-filling stations near their respective inorganic and organic bulk storage areas (Attachment 2).

3. The discharger has been investigating hydrogeologic conditions as well as the lateral and vertical extent of onsite and offsite soil and water pollution in accordance with plans accepted by the Regional Board. Several monitoring wells and soil borings on the McKesson property and immediately downgradient of the site have revealed that the soil and groundwater are polluted. Further investigations will be needed to adequately determine local and regional conditions and plume extent.

4. This pollution is believed to have been caused by prior poor housekeeping. One likely source is spillage at the drum-filling station for the solvents. Several soil samples in this area reveal concentrations of pollutants in the soil in the parts per hundreds range. Water from the existing monitoring wells, including those off-site and down-gradient, have pollutant concentrations in the parts per millions range.

5. The discharger has installed and begun operation of a pilot ground water extraction and treatment system in accordance with a plan accepted by the Regional Board staff.

6. The discharger has proposed a plan for removal of polluted soil.

7. The Board adopted a revised Basin Plan dated 21 July 1982 which prohibits the discharge of all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to the waters of the Basin.

8. The existing and/or potential beneficial uses of the groundwater underlying and in the vicinity of the site include:

   a. municipal supply

   b. domestic supply

   c. industrial supply

   d. agricultural supply

9. The existing beneficial uses of the surface waters (Alameda Creek) include:

   a. contact and non-contact water recreation

   b. wildlife habitat

   c. groundwater recharge

   d. fish migration and spawning

10. The Board has notified all interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge.

11. The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

12. The permit is exempt from the provisions of the California Environmental Quality Act under Section 15304, Title 14, of the California Administrative Code.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of waste or hazardous material in a manner which will degrade water quality or adversely affect the beneficial uses of the groundwaters of the State is prohibited.

2. The discharge of wastes or hazardous materials through surface runoff or through subsurface transport which will degrade the water quality or adversely affect the beneficial uses of the surface waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of the pollution is prohibited.

4. Bypassing extracted groundwater from the treatment system to waters of the State is prohibited. If bypassing should occur, the discharger shall notify this Board's Executive Officer as soon as possible.

B. SPECIFICATIONS

1. The lateral and vertical extent of the on-site groundwater contamination, and any off-site groundwater contamination emanating from the discharger's facility shall be defined. Should monitoring results show evidence of plume migration, additional plume characterization shall be required.

2. The local and regional hydrogeologic conditions shall be defined in the areas of and contiguous to the identified pollution.

3. The potential for private wells of record, if any, in the path of any chemical plume emanating from the discharger's facility which could act as conduits for the migration of any pollution shall be identified and evaluated. Wells identified as actual or potential conduits shall be properly sealed or abandoned, to the extent legally possible.

C. PROVISIONS

1. The storage, handling, treatment or disposal of polluted soil or groundwater shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. In order to comply with Prohibition A.1, the discharger shall complete the following tasks and submit reports documenting compliance according to the following time schedule:

	Develop and evaluate cleanup alternatives. Select a cleanup alternative acceptable to the Executive Officer	Complete construction and implement the approved clean up alternative
Area in the vicinity of the site	January 1, 1987	July 1, 1987
Remainder of the down-gradient area if groundwater pollution exists	March 1, 1987	Sept. 1, 1987

3. In order to comply with Specification B.1, the discharger shall meet the following time schedule:

TASK	COMPLETION DATE
a. Submit a proposal acceptable to the Executive Officer to define the lateral and vertical extent of the pollution offsite, to determine whether pollution has migrated into the Niles Cone alluvial fan and affected the Newark, Centerville or Fremont aquifers and to evaluate the potential threat to private and municipal wells.	April 15, 1986

b.	Submit a technical report transmitting the results of the investigation described in Provision 3.a.	November 15, 1986
c.	Submit a proposal acceptable to the Executive Officer to determine the extent of soil and groundwater pollution onsite. Methods to determine the areas of highest soil pollution and the vertical extent of the onsite pollution in the groundwater should be included.	March 15, 1986
d.	Submit a technical report transmitting the results of the investigation described in Provision 3.c.	August 15, 1986

4. In order to comply with Specification B.2 the discharger to the extent responsible, shall:

   a. Determine the hydraulic characteristics of major water-bearing zones found to have pollution and determine their hydraulic connection to all adjoining unpolluted water-bearing zones by using appropriate test methods.

   b. Determine the existing and potential migration of polluted groundwater from one water-bearing zone to another.

   c. Determine the recharge and discharge areas of the polluted groundwater plume and how these factors affect pollutant migration on a long-term and short-term basis.

   d. Determine the directions and velocities of groundwater flow in the water-bearing zones described in Provision 4.a. above.

   e. To the extent of existing and available data assess the influence, if any, that pumping from private or public wells in the Newark, Centerville or Fremont aquifers may have on groundwater flow and migration.

f. The information required by Provisions 4.a-e will be included as part of the monthly and annual reports required in Provisions 8 and 9 with all work completed by January 1, 1987.

5. In order to comply with Specification B.3, the discharger shall meet the following time schedule:

TASK	COMPLETION DATE
a. Assess the threat posed by wells of record identified as actual or poten tial conduits of pollution.	September 15, 1986
b. Develop a program and time schedule acceptable to the Executive Officer to eliminate the threat posed by wells of record identified as actual or potential conduits of pollution. The program will include a discussion of the results of the risk assessment in 5.a. and the options available for eliminating the cross-pollution threat and the rationale that will be used for selecting and implementing an appropriate option for each identified well.	October 15, 1986
c. Implement the program approved in Provision 5.b.	January 1, 1987

6. Documentation of compliance with the Specifications and Provisions in this Order shall include groundwater gradient contour maps, pollution concentration contour maps, cross-sectional geologic maps, geophysical logs and laboratory analyses. This documentation shall be updated and submitted with each technical report required under this Order, as appropriate.

7. Interim containment of the pollution plumes shall commence in areas of known pollution as soon as practicable, but in any event shall not be delayed pending defining the full extent of pollution in any aquifer.

8. The discharger shall submit brief monthly summaries (letter summaries) of its progress toward compliance with the Provisions specified in this Order, including specific actions taken and actions proposed prior to the next report. The monthly summary should be received in written form by the Regional Board's Executive Officer by the end of the second week of each month.

9. The discharger shall report to the Board, annually, with the first report due in April 1986 on the effectiveness of the groundwater containment and cleanup program. The report shall discuss the treatment and disposal of any extracted groundwater, the status of the containment plume and the expected results of future extraction.

10. Results from the quarterly sampling of monitoring wells and private wells shall be submitted with the July, October, January and April monthly summaries.

11. All samples shall be analyzed by State certified laboratories using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review. If the discharger chooses to use its own laboratory for the analytic work, ten percent of all water samples shall be split and analyzed by an outside laboratory.

12. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:

    a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept.

    b. Access to copy any records required to be kept under terms and conditions of this Order.

    c. Inspection of any monitoring equipment or methods required by this Order.

    d. Sampling of any groundwater or soil which is accessible, or may become accessible as part of any investigation or remedial action program, to the discharger.

13. The discharger shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.

14. The Board will review this order periodically and may revise the requirements when necessary. Interim and final cleanup limits shall be established by Board action once compliance with Specifications is achieved.

15. If the discharger is unable to meet any of the completion dates specified in this Order by reason of a circumstance or failure which could not have been reasonably foreseen or prevented, the discharger shall promptly notify the Regional Board for consideration of an extension of completion date(s).

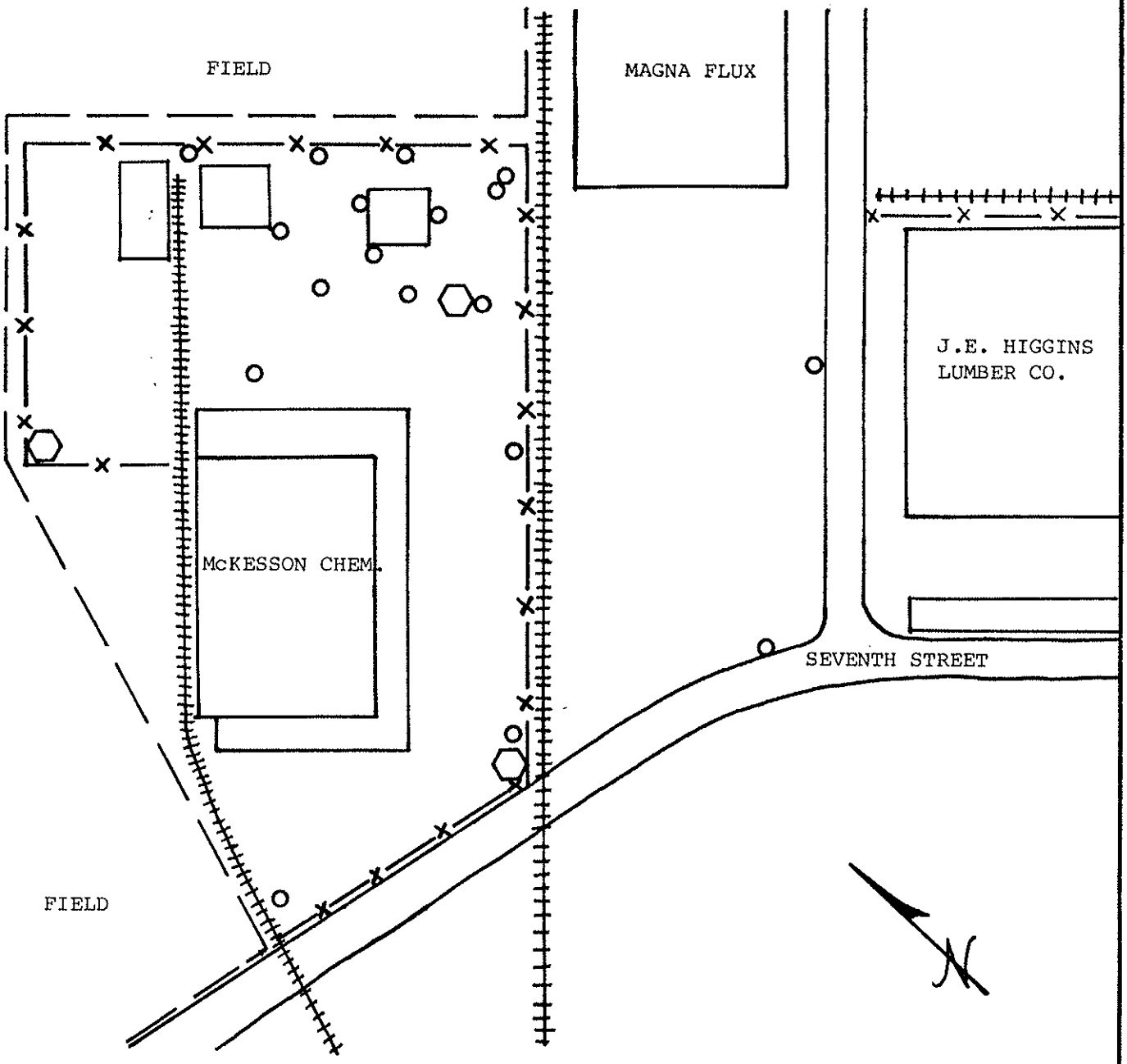
I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 19, 1986.

ROGER B. JAMES
Executive Officer

Attachments:

1. Location Map
2. Site Map

McKESSON CHEMICAL COMPANY
SITE MAP



Scale 1"=150'

LEGEND

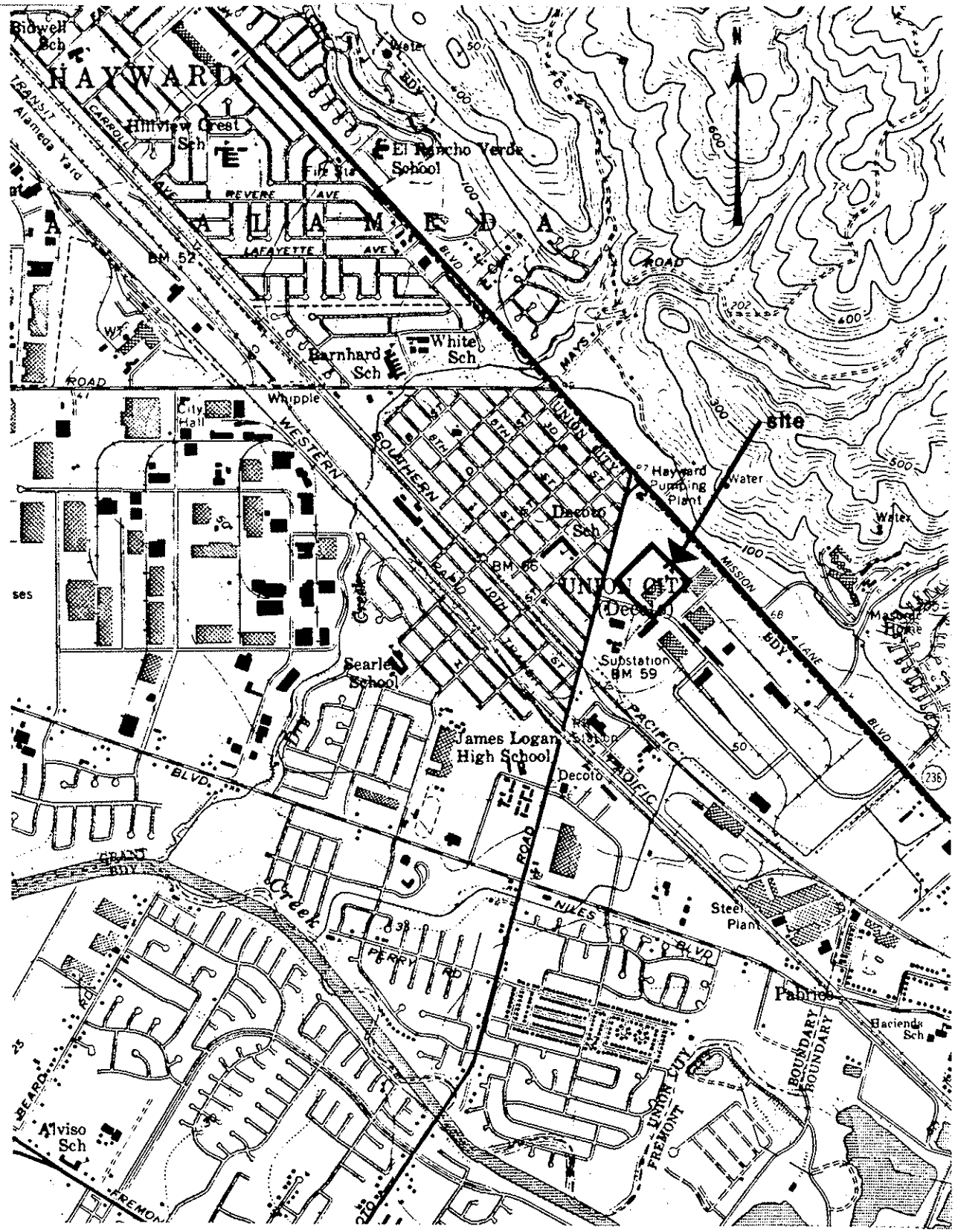
- Shallow Wells
- Deep Wells
- Fence
- Railroad Track

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Site Map
McKesson Chemical Company- Union City

Alameda County

DRAWN BY: [illegible] DATE: 1-3-86 DRWG. NO.



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STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Location Map
McKesson Chemical Company
Union City
Alameda County

DRAWN BY: Jones	DATE: 1-3-86	DRWG. NO.